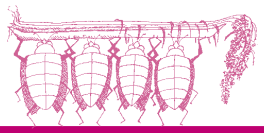

Galerucella

Lythrum salicaria

SEE CELLA CHOW!

A Purple Loosestrife Biological Control Manual for Educators

2003

WISCONSIN DEPARTMENT OF NATURAL RESOURCES • WISCONSIN WETLANDS ASSOCIATION

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A Purple Loosestrife Biological Control Manual for Educators

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WISCONSIN DEPT. OF NATURAL RESOURCES

Wisconsin Wetlands Association

Activities contained in this curriculum unit were compiled and adapted by Greg Bisbee, Dave Blumer, Dave Burbach, Bret Iverson, Donna Kemp, Laura Richter, Shirley Sklavos, Derek Strohl, Barb Thompson, Robert J. Welch, Catherine Werts, and Brock Woods. This packet reflects the work done by the above educators in an August 2001 workshop coordinated by the Wisconsin Wetlands Association (WWA) and the Wisconsin Department of Natural Resources (DNR). Their diligent work and substantial contributions are appreciated.

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"Cella" drawings courtesy of Rita Hayen.

The *Galerucella* life cycle drawing on page 31 originally appeared as Fig. 2 in Richard A. Malecki, *et al.* 1993. Biological Control of Purple Loosestrife. *BioScience* (November, vol. 43, no. 10). Copyright, American Institute of Biological Sciences. Used with permission.

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To all Wisconsin Educators—

Wisconsin is blessed with lots of beautiful wet places and many people who perceive a deep connection to those places. We hope that this publication will deepen that connection for both you and your students.

Purple loosestrife, as you will find out in greater detail in the pages to follow, has been in Wisconsin since the early 1900s. Only recently, however, has it been recognized as a major problem, taking on labels like "nuisance," "pest," "invader," and even "a deadly threat to Wisconsin's wetlands."

Citizens can now get involved in loosestrife control efforts. The Wisconsin Department of Natural Resources (DNR) has developed a program to engage citizens in this work, especially through rearing and releasing biological control insects. Teachers have found this project to be a practical undertaking at schools and the basis for more effective teaching about plants, insects, invasive species, wetland ecology, and myriad other topics. In fact, the project supplies the final, crucial step in turning students into true environmental citizens, that of personal involvement and success in solving real-life environmental problems.

But once you're rearing beetles, how can you infuse the experience into your lesson plans? In summer 2001, the Wisconsin DNR and the Wisconsin Wetlands Association (WWA) convened 10 educators at the Central Wisconsin Environmental Station to develop a series of classroom teaching activities centered on the biological control (bio-control) process. Teachers started by reviewing existing activities, modifying them as needed, then created complementary ones. Over the course of the 3-day workshop we selected 15 of the best activities about state wetlands for use in Wisconsin classrooms. These are the activities you have here. Topics range from a host plant-specificity experiment to an invasive plant art project. Applicable model Wisconsin science and environmental education standards are listed for each activity.

How and when to use these activities is up to you. Though we have put them in a sequence logical to us, it is our intention that you use them in any order that fits your curriculum.

This publication is only part of a growing solution to invasive species, one that taps nature to control the problem and involves reconnecting people to the land. The solution grows as WWA recruits and trains volunteers to survey purple loosestrife in Wisconsin, as the Wisconsin DNR explores potential biological control agents for other invasive plants, and as you awaken one more student to the interdependence of all living things. More information about this solution can be found at **www.wiscwetlands.org** and **www.dnr.state.wi.us**.

Thank you for your participation and keep up the good work.

Most sincerely,

Wisconsin Wetlands Association

Brock Woods

Wisconsin DNR and UW-Extension
Purple Loosestrife Biological Control Project